

Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the present application:

Listing of Claims:

1. (Previously presented) An integrated circuit (IC) comprising:
a primary conductor for an inductor;
a secondary conductor forming a loop in proximity to the primary conductor;
a switch coupled in series with the secondary conductor and operable to open or close the loop, wherein inductance of the inductor is varied by closing and opening the loop with the switch;
and
a current source coupled in series with the secondary conductor and the switch, the current source being operable to control a current in the secondary conductor to flow in a first direction in the secondary conductor to reduce the inductance of the inductor and in a second direction in the secondary conductor to increase the inductance.
2. (Original) The integrated circuit of claim 1, wherein the primary conductor is formed in a spiral pattern.
3. (Canceled)
4. (Canceled)
5. (Canceled)
6. (Original) The integrated circuit of claim 1, wherein the secondary conductor is located outside of the primary conductor.
7. (Original) The integrated circuit of claim 1, wherein the secondary conductor is located inside of the primary conductor.

8. (Original) The integrated circuit of claim 1, wherein the secondary conductor is located on a layer on top of the primary conductor.
9. (Original) The integrated circuit of claim 1, wherein the secondary conductor is located on a layer underneath the primary conductor.
10. (Original) The integrated circuit of claim 1, further comprising: a third conductor forming a second loop in proximity to the primary conductor; and a second switch coupled in series with the third conductor and operable to open or close the second loop.
11. (Original) The integrated circuit of claim 1, further comprising: a capacitor coupled in series with the secondary conductor and the switch.
12. (Original) The integrated circuit of claim 1, further comprising: a reactive circuit element coupled in series with the secondary conductor and the switch.
13. (Original) The integrated circuit of claim 1, wherein the primary conductor is fabricated with a low-loss metal.
14. (Original) The integrated circuit of claim 1, wherein the secondary conductor is fabricated with a low-loss metal.
15. (Original) The integrated circuit of claim 1, wherein the switch is implemented with a metal-oxide semiconductor (MOS) transistor.
16. (Original) The integrated circuit of claim 1, wherein the secondary conductor is placed at a predetermined distance away from the primary conductor, the predetermined distance being selected based on a particular amount of change in inductance with the loop opened and closed.
17. (Original) The integrated circuit of claim 1, further comprising: a capacitor coupled to two ends of the primary conductor, wherein the capacitor and the inductor form a resonator tank.

18. (Original) The integrated circuit of claim 1, wherein the inductor is part of a voltage controlled oscillator (VCO).

19. (Original) The integrated circuit of claim 1, wherein the inductor is part of a filter.

20. (Original) The integrated circuit of claim 1, wherein the inductor is part of an impedance matching network.

21. (Cancelled)

22. (Cancelled)

23. (Previously presented) An integrated circuit (IC) comprising:
a primary conductor for an inductor, the primary conductor being formed with traces on a circuit board;
a secondary conductor forming a loop with traces on the circuit board and in proximity to the primary conductor;
a switch coupled in series with the secondary conductor and operable to open or close the loop, wherein inductance of the inductor is varied by closing and opening the loop with the switch;
a current source coupled in series with the secondary conductor and the switch, the current source being operable to control a current in the secondary conductor to flow in a first direction in the secondary conductor to reduce the inductance of the inductor and in a second direction in the secondary conductor to increase the inductance; and
a capacitor coupled to two ends of the primary conductor, wherein the capacitor and inductor form a resonator tank for a voltage controlled oscillator (VCO), and wherein the VCO is operable at two frequencies corresponding to the loop being closed and opened.

24. (Original) The integrated circuit of claim 23, wherein the capacitor is a variable capacitor.

25. (Cancelled)

26. (Cancelled)

27. (Cancelled)

28. (Cancelled)

29. (New) An integrated circuit (IC) comprising:

a primary conductor for an inductor;

a secondary conductor forming a loop in proximity to the primary conductor;

switching means, coupled in series with the secondary conductor, the switching means operable to open or close the loop, wherein inductance of the inductor is varied by closing and opening the loop; and

current control means, coupled in series with the secondary conductor and the switching means, for controlling a current in the secondary conductor to flow in a first direction in the secondary conductor to reduce the inductance of the inductor and in a second direction in the secondary conductor to increase the inductance.

30. (New) The integrated circuit of claim 29, wherein the primary conductor is formed in a spiral pattern.

31. (New) The integrated circuit of claim 29, wherein the secondary conductor is located outside of the primary conductor.

32. (New) The integrated circuit of claim 29, wherein the secondary conductor is located inside of the primary conductor.

33. (New) The integrated circuit of claim 29, wherein the secondary conductor is located on a layer on top of the primary conductor.

34. (New) The integrated circuit of claim 29, wherein the secondary conductor is located on a layer underneath the primary conductor.

35. (New) The integrated circuit of claim 29, further comprising: a third conductor forming a

second loop in proximity to the primary conductor; and a second switch coupled in series with the third conductor and operable to open or close the second loop.

36. (New) The integrated circuit of claim 29, further comprising: a capacitor coupled in series with the secondary conductor and the switching means.

37. (New) The integrated circuit of claim 29, further comprising: a reactive circuit element coupled in series with the secondary conductor and the switching means.

38. (New) The integrated circuit of claim 29, wherein the primary conductor is fabricated with a low-loss metal.

39. (New) The integrated circuit of claim 29, wherein the secondary conductor is fabricated with a low-loss metal.

40. (New) The integrated circuit of claim 29, wherein the switching means comprises with a metal-oxide semiconductor (MOS) transistor.

41. (New) The integrated circuit of claim 29, wherein the secondary conductor is placed at a predetermined distance away from the primary conductor, the predetermined distance being selected based on a particular amount of change in inductance with the loop opened and closed.

42. (New) The integrated circuit of claim 29, further comprising: a capacitor coupled to two ends of the primary conductor, wherein the capacitor and the inductor form a resonator tank.

43. (New) The integrated circuit of claim 29, wherein the inductor is part of a voltage controlled oscillator (VCO).

44. (New) The integrated circuit of claim 29, wherein the inductor is part of a filter.

45. (New) The integrated circuit of claim 29, wherein the inductor is part of an impedance matching network.